The Concept of recovery in a Norwegian setting to be examined by the Assertive Community Treatment (ACT) model and mixed methods

Abstract:

Recovery is a crucial concept in the mental health field. The research of recovery is split between personal, social and clinical recovery. The purpose of this study was to explore the fragmented concept of recovery in the context of assertive community treatment (ACT) in Norway. The study has a mixed methods design with a pragmatic approach. The Questionnaire of Personal Recovery (QPR) and open-ended questions from 70 participants from 12 ACT teams in Norway, collected by the method "Users interview users", are combined with interviews or focus groups with 8 of the former mentioned 70 participants. The service users report a high degree of experienced recovery as defined by the QPR. Surprisingly those under a community treatment order (CTO report the highest degree of personal recovery.). The qualitative material shows that the service users interpret the concept of recovery differently from researchers and professionals. The ACT service users highlight three things of importance: flexible treatment, medication and access to a car. They emphasize the necessity of basic needs to be met in order to experience a meaningful recovery process and these basic needs may be of even greater importance to those under CTOs. Their experiences should imply an increased emphasize on securing safe housing, a sound economy and access to ordinary benefits offered by the society.

Key words: Mixed methods, recovery, Assertive community treatment (ACT), Questionnaire of Personal Recovery (QPR), basic needs

Introduction

It may be challenging to work through mental and intellectual processes if basic needs are unmet (Henwood et al., 2014, Maslow, 1943). A thriving personal development, such as "recovery", requires a personal security for basic needs (Padgett et al., 2012). "Recovery" is a fragmented concept, and it is debated what is implied in this concept, both for the individual and for the mental health services (Harper and Speed, 2012, Davidson, 2003). There has been increased emphasis on recovery in treatment of severe mental illness, both by users and clinicians (Salyers et al., 2010, Davidson et al., 2010, Kidd et al., 2011).

Leamy et al. (2011) summarize recovery in their systematic review: "The recovery process that have the most proximal relevance to clinical research and practice are: connectedness; hope and optimism about the future; identity; meaning of life; and empowerment (giving the acronym CHIME)" (page 449). Recovery contains elements of personal motivation combined with opportunities, i.e. what may inhibit and what may promote this personal development?

Three different concepts of recovery

The concept of recovery is rooted in two opposing traditions – the user movement and clinical practice (Borg et al., 2013). This division is reflected in recovery research, with qualitative and quantitative methods respectively. A third meaning, elaborated from these two roots, is the concept of social recovery, in which the individual is viewed in a social context.

Patricia Deegan's article, "The lived experience of rehabilitation", was the offset of the personal recovery concept (Rose, 2014a, Jacobson and Greenley, 2001, Deegan, 1988). Deegan's thoughts were to be absorbed and developed by the user movement, and described personal recovery as an internal personal process.

Clinical recovery, which represents the classical treatment system based on the diagnostic system, medication and different psychometric measurements as an outcome of treatment, has taken elements from personal recovery (Rose, 2014a). Treatment can initiate the recovery processes with the therapists setting up goals where clinical outcomes can be measured with psychometric instruments. There may be a question of whether clinical outcomes are measuring the relevant aspects of the recovery process (Andresen et al., 2010). These psychometric measurements are ways of documenting treatment effect, progress and efficacy in therapy for the service user, the therapist and the system.

In between personal recovery and clinical recovery lies social recovery (Roe et al., 2007, Davidson et al., 2010, Schön et al., 2009). Social recovery regards the interaction between the individual and its surroundings. As Schön, Denhov and Topor (2009) conclude: "Recovery from mental illness is a social process in which the helping factors have to do with the quality of social relationships, irrespective of whether these are formed in inpatient care, in medicinal circumstances, in psychotherapy, with family or friends, or in the company of other persons in the same situation" (page 346). They oppose the idea of recovery as merely an individual process and use a holistic approach to the concept.

In the literature, recovery is presented as a model of explanation, a model of treatment, and as a paradigm. The clinical recovery model is developed from clinical practice, and diagnosis is considered a crucial part of the explanation for mental distress (Barrett et al., 2010, Davies, 2013). According to social recovery, it is important to see the individual in his or her context (Roe et al., 2007, Davidson et al., 2010). The recovery process takes place in the individual's social setting.

Some of the literature describes, in various ways, what the recovery process contains. There are studies that underline that basal needs must be met before a constructive recovery process can begin, because recovery may be related to self-actualization, in accordance with Maslow's hierarchy (Henwood et al., 2014, Maslow, 1943). Recovery from mental distress may be described as a non-linear process, but may be seriously complicated by life stressors, linked to former mental distress experiences. (Padgett et al., 2012)

ACT and recovery

Assertive Community Treatment (ACT) is a mental health service based on clinical recovery (Stein and Test, 1980). It started out in Wisconsin in the 1970s, when hospital services were brought out into the community where the patients lived, keeping the structures from in-hospital treatment. The ACT model is built on a holistic approach, to give patients with a severe mental illness a broad spectrum of services (Bond et al., 2001, Stein and Santos, 1998). According to the original description of an ACT team, such a team should be inter-disciplinary. When the ACT model started out, the need for documentation of effects was

evident (Stein and Test, 1980). Today the ACT model is one of the most researched treatment models, and is defined as evidence-based (Marshall and Lockwood, 2011).

There has been a demand for more recovery-based practice within the ACT model after the turn of the millennium (Salyers and Tsemberis, 2007, Salyers et al., 2010, Salyers et al., 2013). In a recovery-oriented practice, it is important that service users are experiencing recovery that involves equality between him or her and the clinician, in order to give the service user a possibility to set his or her own goals.

ACT in a Norwegian context

The ACT model was implemented in Norway in 2009 (Landheim A et al., 2015). 14 ACT teams were established after the Norwegian health authorities acknowledged that existing services were out of reach for individuals with severe mental distress. This group of service users often experienced poor living conditions, addiction and social issues, and is often defined as "untreatable". To be included in an ACT team gave certain personal benefits, and was a motivation to stay in treatment (Pettersen et al., 2014). This sub study is part of a national evaluation of 12 Norwegian ACT teams, and deals with the service users' experience with the ACT model (Landheim A et al., 2015).

Several of the ACT service users are under community treatment order (CTO). A specialist in psychiatry or psychology issues this restriction in order to secure both the individual in severe distress and the society. It is renewed every third month and may last for years, and

is usually connected to being discharged from inpatient treatment. The CTO demands close follow up in treatment of outpatients by the ACT team, and may involve forced medication, compliance, regular consultations and/or financial administration, which in this study includes a total of 42 users placed in CTO. (Heiervang et al., 2014, Stuen et al., 2015). ACT service users on CTO are associated with long treatment history, institutionalization and a varied degree of negative experiences with treatment.

The aim of this article is to explore the concept of recovery in light of the ACT model and mixed methods. The research questions for this study are: *1. What are the predictors of a positive recovery process among the ACT service users? 2. Which basic factors do ACT service users point out as important for their recovery process?*

Methods

Mixed methods research covers the debate on how to combine the two methods and opposite philosophical standpoints, positivism and phenomenology (Clark and Creswell, 2011). New philosophical paradigms arise when the existing isolated standpoints do not have the ability to solve core challenges (Kuhn, 1962). Pragmatism has come up as the third philosophical paradigm in mixed methods research, and is valued as an adequate solution to combine qualitative and quantitative methods by telling “how to do research”.

Pragmatism and reflexivity are different ways of examining recovery. The main belief in pragmatism is the fact that our human actions cannot be separated from previous experience and the conviction that has risen as a consequence of these experiences

(Morgan, 2013). To reflect on one's choices and experiences in the research process makes the study more transparent (Alvesson and Kärreman, 2007, Bourdieu, 2004, Rallis and Rossman, 2003).

Mixed methods design intercepts the three different views of recovery, and pragmatism is not widely used in the recovery literature to describe the ACT service users' perspective and recovery. Structure is important when using a mixed methods approach, and table 1 shows the process (Clark and Creswell, 2011).

Table 1, Phases

Developing the study

The quality of services is often assessed differently by service users from providers of the same services (By Rise, Westerlund et.al, 2013). The "Users interview users" method has been developed and used in Norwegian health services since 1998. Similar methods have been used in the British National Health Service (Rose, 2001). "Users interview users" is mainly a qualitative method. Our study was the first to utilize a structured, predefined scale with users interviewing the service users of ACT teams. We recruited interviewers through an announcement on a webpage in January 2012, and received 70 applications from qualified people. Several of the applicants had academic background in addition to lived experiences with mental health problems and services. A group of 9 interviewers and a coordinator completed the interviews in 12 ACT teams during a predefined inclusion period of twelve months.

The project group, consisting of three researchers and two collaborative researchers, developed a questionnaire with various psychometric instruments. A translated version of Questionnaire about Personal Recovery (QPR) was used (Neil, Kilbride et al. 2009, Neil 2013). As this was the first time QPR was used in a Norwegian context, a translation was provided by the project team. QPR is a 5-point Likert scale. QPR has been validated as a good recovery tool (Shanks, 2013, Law, 2012). It rates interpersonal and intrapersonal factors, and covers the framework dealing with important recovery issues (Leamy et al., 2011). In addition, a Client Satisfaction Questionnaire (CSQ-8) was included (Attkisson and Zwick, 1982). CSQ constitutes of 8 questions on a Likert scale from 1 to 4, with a top score of 32 for very satisfied.

The variables used in the correlation analysis were: the Alcohol Use Disorder Identification Test (AUDIT) (Babor et al., 2001), a 10-item screening tool assessing alcohol consumption with a cut-off on 8 for males and 6 for females. Drug Use Disorder Identification Test (DUDIT) screens problematic use of illegal drugs, with a cut-off on 6 for males and 2 for females. Global Assessments of Functioning score (GAF) rates from 1-100. This instrument rates level of symptoms and functioning. Brief Psychiatric Rating Scale (BPRS) estimates psychiatric symptoms on a 7-point Likert scale. In addition, we added gender, age and CTO. There were 5 open-ended questions from the survey, dealing with what the ACT service users liked and did not like within ACT, changes in relations with ACT and turning points, and if there were important topics that were left out. The open-ended questions were included by the collaborative researchers.

In this study, the qualitative and quantitative data will be called “empirical material” (Alvesson and Kärreman, 2007). Renaming the data created equality between the qualitative and quantitative data, and provided us with the possibility of comparing the results of the study.

The study was approved by The Regional Committee for Medical and Health Research Ethics for Health Region South-East (registration number 2010/1196a).

The population

The “Users interview users” study consisted of 84 participants, recruited from the 178 participants in the national evaluation. We excluded 14 due to lack of baseline data, and ended up with N=70, 22 women (32%) and 48 men (68%). 23 participants (47%) were under CTO, 17 males and 6 females, with 40 years as the mean age. 55 participants were of Norwegian origin, 79% in total, and 12 of other origins. Only 4 out of 70 were married or living together with a partner.

Results

Part 1-3 of the study

Statistical analyses

Two approaches were used to identify variables that may affect the recovery process, as measured by the QPR. Firstly, the variables were analysed one by one in a simple linear regression. The importance of each variable was then assessed by looking at both the size of the effect (i.e. the estimated regression coefficient) and its explanatory power, which is indicated by the coefficient of determination R^2.

The second approach was to use stepwise model selection procedures to build a multiple linear regression model, which would then contain the most important predictors of recovery. Akaike's Information Criterion (AIC) was used with forward selection, backward elimination and bidirectional selection to identify the best set of predictors. The statistical software package R (Team, 2015) was used in all these analyses.

Results

The results from the simple linear regressions are shown in table 2 below. The variables identified to be the most important by simple linear regressions, judged by explanatory power (R^2), were CSQ sum score. CTO, however, had a large effect, being associated with an increase of 5.1 on the QPR score. Both forward and backward selections selected a model with BPRS total, GAF and CSQ as predictors. The bidirectional selection procedure ended up with a model with CSQ as predictor. Except for BPRS total and GAF, the selected variables were also identified as important in the simple regression analyses.

Table 2, Regression analysis

As table 2 implies, CTO and satisfaction correlates with the ACT service users' recovery. We wanted to compare the results with other studies using QPR, but they were not directly comparable (Slade et al., 2011, Slade et al., 2015). We used SPSS to explore the 22 items in QPR. These results are displayed in table 3.

Table 3, QPR results

The participants were divided into subgroups by gender and CTO. The total mean score was 3.69 out of 5. Males reported a greater degree of recovery (mean 3.73) than females (3.60). In the former study, results showed that the most satisfied service users were those under CTO, as it does in our correlation analysis. Participants under CTO reported the highest degree of recovery (mean=3.85).

The p values for gender and CTO were calculated by an Independent-Sample T-test. The H0 hypothesis was "there are no difference between males and females, and there are no difference between the CTO group and the non-CTO group". There were no statistical significance between genders, but there were several assertions that were statistical significant in the CTO and non-CTO group, as shown in table 3.

Phases 4-6

The Regional Ethical Committee approved an additional part of the study in May 2015. We added (to establish) focus groups in order to go in further detail into the research questions, as well as time efficiency and exploration of the attitudes of different groups. We planned to create focus groups, splitting the group of participants into satisfied, with a total CSQ-8 score from 26 to 32, and less satisfied, with a total score below 26. There were difficulties in creating focus groups for various reasons. Firstly, out of the 12 teams participating in the "users ask users" survey, three teams were shut down, and further three were converted into Flexible ACT teams (FACT). We had to rule out the former participants now belonging to other health services. Secondly, this is a group of individuals with health conditions that may vary a lot.

We ended up with a total of eight (N=8) participants. Six individual participants were interviewed in two different teams. 2 of these interviews had to be dismissed because the participants were under the influence of illicit drugs. A focus group with 4 participants was carried out in a third team. Overall, the interviews constitute 7 hours of dialogue, which makes for 86 pages of transcribed text. The interviews lasted from 30 to 90 minutes. The 8 participants had long and diverse experience with mental health services. Their ages ranged from 25 to 59 years, and there were both males (5) and females (3). All of them had been hospitalized several times and some had been, or were still, under CTO.

Analyses of qualitative material

This work has been inspired by Bordieu's (1996) thought on the understanding of and meaning of reflexivity. "How can we claim to engage in the scientific investigation presuppositions if we do not gain knowledge (science) of our own presuppositions? (page 19) (Bourdieu, 1996). This is in accordance with a pragmatic approach (Biesta, 2015).

The analysis of the qualitative material is mainly done by the first author, AML, who experienced substantial developments during this research. Important traits are the material itself and maturity as a researcher. Starting out as an interviewer in the "users interviews users" study gave her an insight into some of the ACT service users' challenges. As a former service user, she has worked consciously to achieve a clarified relation to her own experiences, in order to uphold both distance and closeness to the topic (Rise et al., 2013, Rose, 2014b). This may provide a different insight than that of other researchers, but may produce some bias as well, as for any other researcher.

At the start of the "Users interview users" project, AML was critical towards the ACT model. How could an American model function in a Norwegian setting? Two different societies with different structures, how could this be applicable? Some of the users were even under CTO, which implied great restrictions in their daily life. This subgroup had to be negative, were some of her thoughts. These assumptions were proved wrong. The model was applicable, and the most satisfied users were the individuals under CTO (Lofthus et al., 2016).

Another presupposition AML had, was that the ACT service users were a homogenous group. She met individuals who had intellectual capacities above average, but with great challenges

in their everyday life, as well as persons with severe mental impairment. The individual meetings challenged her stereotyped notion about who the ACT service users were, but she gained an insight in their daily challenges and what they emphasized as important in the "user ask user" setting, the interviews, and focus group.

In this analysis, we followed a research model that looked for "mysteries", inspired by Alvesson and Kärreman (2007). "Mysteries" are explained as that which seemed to be a gap between the literature and the empirical material, to develop a new idea, and avoided the use of traditional systematic categorization of the material. This is due to AML's previous experience shows that it may limit a creative process. The quest for mysteries involved looking for phenomena as often-repeated themes in the empirical material, and compare with the literature. We read and reread the material, including field notes made during the data collection, the open-ended questions, and compared it with the literature. This "dialogue" (ibid. page 1266) between different sources made us aware of four different "mysteries"; flexibility in treatment, medication, access to a car and "to be normal". The last mystery is treated in a separate article (Lofthus et al. in process). The "mystery" approach made it possible to merge and compare results from the various stages in the process, and to answer the research questions.

Qualitative results

Flexibility in treatment

"…They have shown great flexibility towards me and towards my situation. Various professional backgrounds. Help with applications and practical things. They drive me to the shops for groceries", says one participant in an open-ended question.

Flexibility in treatment with a holistic approach was an issue of great importance for the ACT service users, in that it helped them to concentrate on their own recovery process. The assertiveness of the services involving home visits and treatment out of the office, were topics that the ACT service users underpinned as important factors for recovery.

"All the professionals are in one place – I don't have to wander around. This is important for my recovery. Good communication between the psychologist, the contact person and me."

The ACT service users described flexibility as a way of simplifying their daily life. The practical help consisted of shopping, help with keeping the home tidy, finding proper housing, access to a car, help with keeping appointments, advice and help in economic matters, and assisting contact with different parts of the social services.

Medication

Medication is part of the treatment in the ACT model, in addition to conversational therapy (Salyers et al., 2013). Medication is not without side effects, and it influences the everyday lives of the ACT service users.

"I received a temporary restriction for driving because of medication, and the effect was undreamt of. I have not participated in the decision-making process about medication. I also experienced an illegal admission in a psychiatric ward by the head physician in the ACT team".

Several of the participants outlined that the limitations of strong medication are enhanced by severe physical and mental side effects, such as cognitive challenges and physical impairments, as well as long-term physical consequences.

The advantage of being in an ACT team may be the increased possibility of getting the right dosage, but also of having the correct medication prescribed and calibrated. Another side of medication is how to come off it. Several participants talked about the possibility of reduced dosage or coming off it without the team members intervening, or letting the service users decide for themselves when the time is right. Many participants found it reassuring to be closely followed up by the staff.

Hans (45) explained: "*I have a long history of fighting against drugs. I prefer no medication. However, I have accepted one medication, in a way… So, I would rather have no medication, but they (The ACT team) don't dare let it happen..."* This fact expresses one of the major paradoxes of treatment.

Access to a car

The Norwegian ACT service users emphasized having access to a car as pivotal to enjoy freedom, independence, and recovery. Several of the Norwegian ACT teams operate in rural areas. The transport services in many rural parts of Norway are scarce, which implies more dependency on a car, compared to urban areas. It is fundamental to have the possibility of connecting and participating in activities to experience recovery. Activities such as social meetings and gatherings, café visits and walks in the countryside were mentioned as important by several participants. To be included in society requires an active participation by the users, and participation is an important recovery factor.

"They – the ACT team – have mainly been of practical importance, and especially in connection with driving," Kai (59) explained.

Some of the ACT service users mentioned the car rides as therapeutic. This was explained as having good and meaningful conversations during the ride, and that the rides were perceived as a break from everyday life and boring routines. Several participants in the qualitative sequence talked about the importance of being picked up to attend activities arranged by the local ACT team. This broke down an important barrier. Having access to a car and travel support from the ACT staff were two interweaving factors for social participation.

Discussion

How can a questionnaire, flexible approaches, medication and access to a car create new thoughts about recovery?

In the drive for new outcomes and development in mental health treatment, the basic and simplest things in life may be overlooked (Harper and Speed, 2012, Henwood et al., 2014). Professionalism and evidence-based practices may be important factors that promotes and/or inhibit personal change and recovery. The CHIME model shows clinical aspects of the recovery (Leamy et al., 2011). These elements are present in the QPR (Neil et al., 2009).

However, our study shows that psychometric measures displayed a description of the ACT model, or clinical recovery. In our quantitative material, we found one important predictor; to be under CTO or not. Two Norwegian qualitative studies have evaluated CTO in two different contexts. Stensrud et al. (2015) showed that a CTO in ordinary mental health services signifies putting life on hold, and this is negative for the service users' recovery. Stuen et al. (2015) concluded that ACT service users under CTO viewed the restriction more positively, due to flexibility and communication regarding treatment, the CTO, and medication. In addition, the ACT team's effort in securing basic needs simplified their everyday life. Pettersen et al. (2014) showed that flexibility, trust and a safety net is relevant for ACT service users.

Our qualitative material revealed that the ACT service users are more occupied with conditions and basic needs in the recovery process, as shown in Maslow's hierarchy (Maslow, 1943). The flexible ACT service's holistic approach secured decent housing, economic security, and food on the table. Calibrated medication gave the service users a life without too many medical side effects. Access to a car implied the possibility of buying food and maintaining a social life. The difference in emphasize regarding focus in recovery has not

been widely discussed by the literature covering the recovery field. The participants spoke freely about the concept of recovery, but tended to speak more about the conditions for a good recovery process than about the process itself. This shows that mixing qualitative and quantitative method implies a possibility for discovering different elements in a complex concept.

Different approaches

This is the first time the "Users interview users" method has been utilized in mixed methods research. It brought new understanding, both to the ACT service users and to the researcher (Rise et al., 2013, Rose, 2001). The service users reported being interviewed by others who have experienced mental distress as positive. Meeting participants face to face, both as interviewer and researcher gave me a clearer picture of their situation. Small talk about various aspects of life as a service user and valuable information was shared, but not recorded in this phase of the study. Overall, to value the complex concept of recovery, "Users interview users" method led to a higher quality of empirical material, and a higher awareness as a researcher.

This study shows that a combination of quantitative and qualitative methods provides a higher knowledge of a fragmented and debated concept (Rallis and Rossman, 2003, Morgan, 2013). Across ACT and recovery research, there seems to be a difference in choice of methods. Clinical recovery research tends to use more quantitative design, while personal and social recovery research tends to embrace qualitative methods. Mixed methods designs in recovery research may help to bridge the knowledge gap.

Ethical consideration

There were several important ethical issues to consider, such as the individuals' ability to give consent, their mental state, and what advantages they would have from participating in this study. This made it even more important to explore their experiences with mental health services and the concept of recovery, and to convey their opinions to a wider audience.

Limitations

The ACT service users experience many daily challenges. It was difficult for several to attend for various reasons. Some participants cancelled at last minute due to distress and illness. Some of the participants were in bad physical or mental shape or intoxicated when we met.

The low number of participants in the quantitative sequence leads to possible bias. This may imply unstable health among the participants and challenge the recruitment process. There was a sense of exhaustion among the participants. Findings from other studies show that the most satisfied and least satisfied service users are the ones who raise their voices, and this might be the case here. The limited number of participants in the qualitative section may also lead to bias. Despite the low participation rate, however, this material brings forward many interesting issues.

Recovery is a blurred concept to understand in a non-English language. There are no specific words that cover the whole meaning of the concept in Norwegian. Dealing with abstract concepts is difficult, especially when the concept is vague. QPR was translated from English into Norwegian, and some of the assertions seemed alien to some of the participants, as they did not answer them. Parts of the interviews and focus group dealt with explaining what the assertions meant and operationalizing them into different contexts which covered the concept of recovery, such as belief, hope and belonging.

Conclusions

It is difficult to make major changes in life if conditions are not suitable for it (Henwood et al., 2014, Harper and Speed, 2012). The ACT service users have a long history of treatment, disappointments, challenging lives, restrictions and medication (Landheim A et al., 2015). This study shows that users need support from professionals to establish a framework in life that is built on meeting physical, social and security needs as an essential part of recovery.

There are several serious issues which the recovery literature does not sufficiently take into account. For example, could it be that being a service user, it is implied that individual rights might be threatened and neglected, or even put aside, due to medication or a CTO?
It is paradoxical that the group experiencing most restrictions is the one with the highest reported recovery.

Relevance for clinical practice

Recovery and treatment lies in the intersection between authoritarianism and autonomy, thereby it is our profound responsibility, as practitioners and as a society, to support our individuals experiencing recovery to live a meaningful life, on their own terms. It is important to underline the ACT service users' opinions about securing basal needs in order to experience a meaningful recovery from severe mental distress.

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Table 1, Study phases

Phases	**Procedures**	**Product**
1. Developing of the questionnaire	Finding existing psychometric instruments and customized questions	A questionnaire containing 79 scaled questions and 5 open-ended questions
2. Quantitive material collection (August 2013-December 2014)	User interview User study (N=70) Baseline material from the national evaluation	Numerical material
3. Quantitive material analyses June 2015	Correlation analyses, SPSS	Descriptive statistics
4. Developing interview guide for focus groups (February-May 2015)	Purposefully selecting up to 10 satisfied and 10 less satisfied ACT service users on the basis of CSQ-8 Develop interview questions	1 focus group and 4 individual interviews N=8
5. Qualitative material collection (May-June 2015)	Focus group, individual interviews and five open ended questions	Empirical material (interviews, transcripts and answers on open ended questions)
6. Qualitative analyses (June-September 2015)	Analyzing the text and open-ended questions looking for "mysteries"	3 "mysteries" were found
7. Integration of the qualitative and quantitative material (October 2015-January 2016)	Interpretation and explanation of the quantitative and qualitative results	Discussion, implications

Table 2, Regression analysis

Variable	**Regression coefficient**	**R^2**	**Type variable**	**p-value**
CTO_intake	5.10	0.04	No=0, Yes=1	0.124
CSQ_sumscore	1.39	0.22		0.0000968
DUDIT_T1_imputed	0.07	0.00		0.623
GAF_score	-0.01	0.00		0.957
BPRS_total	-0.01	0.00		0.933
AUDIT_T1_imputed	0.00	0.00		0.987

Table 3 - Questionnaire about Personal Recovery (QPR)	N	Mean (St. Dev.)	Male	Female	P-value	Non-CTO by intake	CTO by intake	P-value
1. I feel better about myself	69	3.83 (1.19)	4.0 (1.00)	3.45 (1.47)	.125	3.63 (1.27)	4.22 (.90)	.031
2. I feel able to take chances in life	68	3.18 (1.16)	3.33 (1.08)	2.86 (1.28)	.152	2.98 (1.19)	3.57 (.99)	.036
3. I am able to develop positive relationships with other people	69	3.81 (1.08)	3.83 (.98)	3.77 (1.27)	.839	3.62 (1.11)	4.23 (.87)	.027
4. I feel part of society rather than isolated	70	3.01 (1.23)	3.19 (1.16)	2.64 (1.32)	.830	2.81 (1.11)	3.43 (1.34)	.045
5. I am able to assert myself	69	3.49 (1.08)	3.54 (1.03)	3.38 (1.02)	.161	3.39 (1.06)	3.70 (1.10)	.273
6. I feel that my life has a purpose	70	3.9 (1.05)	3.83 (1.09)	4.05 (.95)	.437	3.77 (1.12)	4.17 (.84)	.128
7. My experiences have changed me for the better	70	3.86 (0.97)	3.92 (.96)	3.73 (.98)	.571	3.74 (1.03)	4.09 (.79)	.166
8. I have been able to come to terms with things that have happened to me in the past and move on with my life	70	3.51 (1.15)	3.48 (1.16)	3.59 (1.14)	.709	3.47 (1.2)	3.61 (1.07)	.635
9. I am basically strongly motivated to get better	70	4.09 (0.91)	3.98 (1.00)	4.32 (.64)	.150	3.95 (1.02)	4.35 (.57)	.093
10. I can recognize the positive things I have done	70	3.93 (0.92)	3.94 (.90)	3.91 (.97)	.906	3.96 (.96)	3.87 (.87)	.711
11. I am able to understand myself better	70	3.76 (0.92)	3.83 (.83)	3.59 (1.09)	.242	3.74 (.97)	3.87 (.85)	.873
12. I can take charge of my life	70	3.77 (1.01)	3.81 (.91)	3.65 (1.21)	.619	3.68 (1.06)	3.96 (.88)	.287
13. I am able to access independent support	69	3.33 (1.19)	3.51 (1.15)	2.95 (1.15)	.702	3.26 (1.24)	3.5 (1.10)	.433
14. I can weigh up the pros and cons of psychiatric treatment	69	3.64 (1.15)	3.74 (1.07)	3.41 (1.29)	.336	3.59 (1.08)	3.74 (1.87)	.608
15. I feel my experiences have made me more sensitive towards others	70	3.87 (.93)	3.92 (.87)	3.77 (1.06)	.144	3.79 (.99)	4.04 (.76)	.238
16. Meeting people who have had similar experiences makes me feel better	70	3.57 (1.07)	3.60 (1.00)	3.50 (1.22)	.709	3.49 (1.06)	3.74 (1.09)	.363
17. My recovery has helped challenge other people's views about getting better	70	3.39 (1.10)	3.42 (1.12)	3.32 (1.08)	.098	3.38 (1.13)	3.39 (1.07)	.977
18. I am able to make sense of my distressing experiences	70	3.74 (0.89)	3.67 (.95)	3.91 (.75)	.297	3.89 (.86)	3.43 (.89)	.043
19. I can actively engage with life	70	3.60 (1.10)	3.71 (1.01)	3.36 (1.29)	.230	3.46 (1.21)	3.83 (.83)	.180
20. I realize that the views of some mental health professionals is not the only way of looking at things	70	4.04 (0.92)	3.98 (.98)	4.18 (.79)	.398	3.89 (1.04)	4.35 (.47)	.053
21. I can take control of aspects of my life	70	3.97 (0.91)	4.04 (.82)	3.82 (1.09)	.223	3.96 (.95)	4.00 (.83)	.857
22. I can find the time to do the things I enjoy	70	3.99 (1.02)	3.98 (.82)	4.00 (1.06)	.938	4.06 (1.00)	3.83 (1.07)	.367
Total	**65**	**3.69 (0.55)**	**3.73 (.55)**	**3.60 (.58)**		**3.61 (.55)**	**3.85 (.56)**	